Gila River Indian Community
Sacaton, AZ
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GILA RIVER INDIAN COMMUNITY

DEPARTMENT OF ENVIRONMENTAL QUALITY
Post Office Box 97
Sacaton, Arizona 85247
(520) 562-2234 • Fax: (520) 562-2245

May 4, 2001

John Holt
Western Area Power Administration
615 S. 43rd Avenue
Phoenix, AZ 85005

Mr. Holt,

The Gila River Indian Community Department of Environmental Quality (DEQ) has reviewed the Sundance Energy Project Environmental Impact Statement (EIS) and has the following comments:

- On page S-5, Table S-1 (Air Quality) The table indicates that "Maximum annual NOx and 24-hour PM_{10} concentrations are predicted to occur on the high terrain to the west and northwest of the proposed facility on the eastern ridges of the Sacaton Mountains". 01/10

  Since the Sacaton Mountains have cultural value to the members of the Gila River Indian Community, impacts to the mountains could be considered adverse by members of GRIC. This potential concern needs to be addressed in the EIS.

- Table S-1 states "The proposed facility would be a major PSD source for NOx and CO. For Configuration 1, the PSD class II increment consumption in significance area of proposed facility would be 21% of NO_2 PSD Class II increment of 25ug/m^3. 02/03

  This statement seems to indicate that this single, proposed facility will use up 21% of the Class II NO_2 increment in the significance area (Santan Mountains). This facility may adversely affect the quality of the air GRIC members breathe. This issue needs to be addressed in more detail in the EIS.

- Page 4-12, States "The result of modeling for criteria and hazardous pollutants indicate small incremental contributions to the existing air quality in the vicinity of the project. The maximum percent of a regulatory standard from proposed facility emissions is five percent for NO_2 for the annual averaging period. This impact occurs on the high terrain to the west and northwest if the proposed facility on the eastern ridges of the Sacaton Mountains". 03/03

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Comment No. 01 **Issue Code: 10**
See the amended air quality analysis in the Section 4.2 in the FEIS. Before the addition of the Selective Catalytic Reduction (SCR) air quality control technology, the average annual maximum NO_x concentration was 4.39 $\mu g/m^3$ with a predicted maximum of 5.08 $\mu g/m^3$. The average 24-hour maximum PM_{10} concentration was 2.37 $\mu g/m^3$ with a predicted maximum of 2.67 $\mu g/m^3$. With the SCR, the average annual maximum NO_x concentration was reduced to 1.11 $\mu g/m^3$ with a predicted maximum of 1.40 $\mu g/m^3$. However, the average maximum 24-hour PM_{10} concentration was increased to 3.76 $\mu g/m^3$ with a predicted maximum of 4.74 $\mu g/m^3$.

Comment No. 02 **Issue Code: 03**
The FEIS includes a new air quality analysis that takes into account the installation of SRC air pollution control technology to reduce NO_x emissions over those discussed in the DEIS. See the amended air quality analysis in Section 4.2 in the FEIS. The results of the analysis indicate that the maximum impact from all sources is predicted to increase to 1.47 $\mu g/m^3$ or 0.07 $\mu g/m^3$ higher than the 1.40 $\mu g/m^3$ modeled for the proposed Facility only. Therefore, the PSD Class II increment consumption would be 1.47 $\mu g/m^3$ or 5.9 percent of the available increment of 25 $\mu g/m^3$.

Comment No. 03 **Issue Code: 03**
Installation of the SRC air pollution control technology would result in an 80% reduction of NO_x emissions over those discussed in the DEIS. See the amended air quality analysis in Section 4.2 in the FEIS. The revised ambient air quality analysis indicates a maximum annual NO_x ambient air concentration of 1.40 $\mu g/m^3$ from the proposed Project which is 1.4% of the NO_x standard. This maximum concentration would occur in the Sacatan Mountains. When all NO_x sources

This statement suggests that only 5% of the regulatory standard is attributed to emissions from the facility. Table 4-11 indicates that the total concentration of NO_2 (background and facility emissions) are 64% of the NOx standard of 100ug/m^3. There seems to be some discrepancy between these numbers. In addition, Table 4-11 indicates that concentrations of background and facility emissions of PM_{10} combined will be 80.5% of the standard of 50ug/m^3 for the annual average. This seem extremely high to result in a finding of no impact. The method for obtaining modeling information, the method for determining percent of regulatory standard and the method for determining impact from the proposed facility is vague and hard to follow. This information needs to be clarified. 03/03 (cont.)

- Page 4-17, Conclusion: The last sentence states "Visibility impacts in the Class I airsheds would be mitigated by instituting operating limits during certain months of the year to reduce visibility extinction to less than five percent."

  Our understanding of rules regarding impact on Class I areas by proposed new Major Sources would prevent this facility from obtaining an air quality permit due to the extent of impact on visibility in the those areas. In addition, the EIS does not address the impact on visibility in the Santan Mountains. The EIS needs to address visibility impacts on the Santan Mountains. 04/11

Please respond to these comments in the Final EIS. If you need more information, please contact Daniel Blair, air quality specialist, at (520) 562-2234. Thank you.

Sincerely,

Patricia Mariella, Ph.D.
Director

cc: Donald R. Antone, Sr., Governor
Daniel Blair, DEQ

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Comment No. 03 (cont.) **Issue Code: 03**

were modeled with the proposed Facility, the maximum ambient NO_x concentration was 1.47 μg/m^3 or 1.47% of the standard (see discussion of PDS Analysis in amended Section 4.2 of the FEIS).

NO_x is not directly measured in Pinal County or the Sacatan Mountains. Therefore, there is no measurement of the background concentration of NO_x near the proposed Facility or near where the maximum annual NO_x concentration is expected to occur. The closest NO_x measurement was the maximum ambient air concentration of 58.5 μg/m^3 in Scottsdale which was used as an ultra-conservative estimate of the existing background ambient NO_x level for these two locations. When the maximum impacts from all sources were added to the assumed conservative background concentration, the resultant NO_x maximum concentration was 59.97 μg/m^3 or about 60% of the maximum allowable National Ambient Air Quality Standard (NAAQS). The maximum annual NO_x concentration due to the proposed Facility would be a 2.5% increase above the background concentration.

The revised ambient air quality analysis indicates a maximum annual PM_{10} ambient air concentration of 0.93 μg/m^3 from the proposed Project or 1.86% of the standard. This maximum would occur in the Sacatan Mountains. The annual background concentration of PM_{10} in the Coolidge area is 39.6 μg/m^3 or 79.2% of the standard. Together, the maximum annual PM_{10} concentration would be 40.53 μg/m^3 or 81% of the standard. The maximum annual PM_{10} concentration due to the proposed Facility would be a 2.3% increase over the background concentration.

The NAAQS for NO_x was established by the U.S. Congress as a level that would protect the public health and welfare with an adequate margin of safety. Sixty percent of this NAAQS still affords more than

Comment No. 03 (cont.) **Issue Code: 03**
adequate protection to public health and welfare. Likewise, the modeled annual PM_{10} ambient levels, at approximately 80% of the NAAQS, afford adequate protection for the public.

Comment No. 04 **Issue Code: 11**
See the air amended quality analysis in Section 4.2 in the FEIS. Based on the updated emissions with the use of SCR, the proposed Facility would not have any adverse effect on Class I airsheds.

Hohokam Irrigation & Drainage District
Coolidge, AZ
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HOHOKAM

The Power of Choice

April 11, 2001

Mr. John Holt, Environmental Manager
Western Area Power Administration
Desert Southwest Region
P.O. Box 6457
Phoenix, Arizona 85005-6457

Re: Public Comment on Sundance Energy Project Draft EIS #0322

Dear Mr. Holt:

As the Manager of the Hohokam Irrigation & Drainage District and as a landowner and resident of Pinal County, I am familiar with the Sundance Energy Project proposed to be constructed South and West of Coolidge. I have also reviewed the Draft EIS for the project and have driven the proposed transmission alignment.

I agree with the conclusions of the Draft EIS that the proposed project will not have any significant environmental impact on the area.

Of the three alternative transmission routes, Alternative 3 is the most acceptable and will have the least amount of adverse impact on adjoining landowners. I would urge you to select this alternative as the "Preferred Alternative". In light of the current energy supply status, I would also urge you to expedite the Final EIS as much as possible.

Thank you for this opportunity to comment and you consideration of those comments received.

Respectfully,

Jack C. Long
Manager

HOHOKAM IRRIGATION & DRAINAGE DISTRICT
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PHONE: (520) 723-7751 • FAX: (520) 723-4939 • E-MAIL: hohokam@cci2.com

01/22 **Comment No. 1** **Issue Code: 22**
Comment noted.

02/17 **Comment No. 2** **Issue Code: 17**
The commentor's preference has been noted.

ROBERT A. LARABELL
Acoustical Consultant

Francis J. Slavin, P.C.
2198 East Camelback Road
Suite 285
Phoenix, Arizona 85016

RE: Sundance Energy Project draft EIS, March 2001

Dear Buzz:

Per your request, I have studied the subject document and I found three major noise impact premises which need to be questioned.

Ambient sound levels

On page 3-8, Table 3-3 lists comparative A-weighted sound levels for various outdoor ambiences, and these levels conform within a few decibels with acousticians' field readings. Note that a "quiet urban nighttime" is listed at 45 dBA, a "quiet suburban nighttime" is 40 dBA, and a "quiet rural nighttime" is shown at 30 dBA. The demographic descriptions and maps seem to be designate the quietest of these ambiences, but Section 4.3 of the Report assumes the louder existing ambiances. As stated at the bottom of page 4-18, "The determination as to whether an impact is significant with respect to noise is a qualitative assessment of the increase in noise level above background as experienced by those receptors." Certainly, if the prevailing ambience is in the 30-35 dBA area, as data in the Report clearly indicates, the changes in sound levels will be about 20 dBA, which the Report acknowledges to be "perceived as 'striking' ". Indeed, the data included in this Report acknowledges that the noise impact will be strongly significant.

01/04

02/04

Impact noise levels

The Report states (bottom p. 4-19) that the impact levels of the operating equipment is "predicted to not exceed a noise level of 55 dBA, about 2,500 feet from the Property boundary..". This rather glib disclaimer is not supported by any field test data, which a project of this scope and impact certainly seems to warrant. The assumption appears to be that steady-state optimal-efficiency operations prevail, neither of which conditions can be legitimately assumed. The Report needs to provide the complete acoustical signatures of the equipment, particularly since the unpredictable start-up times and noise levels could very well prove traumatic to the residents of the eleven houses within that proximity. If the precise noise impact levels can not be plotted, it is only reasonable that the project provide a noise attenuation stipulation wherein the equipment is warranted to produce noise levels no greater than an agreed-upon impact maximum.

03/04

04/04

Comment No. 01 **Issue Code: 04**
The expected noise level at the nearest residences from the proposed Facility is 55 dBA, which is an increase of 10 dBA from the average noise level of 45.2 measured in mid-December for this specific rural area. There would be an increase of 14 dBA above the nightime average of 41.3 dBA. Also see response to Public Hearing Comment No. 31.

Comment No. 02 **Issue Code: 04**
See response to Comment No. 01 above.

Comment No. 03 **Issue Code: 04**
The DEIS considered the manufacturer's estimated noise effects (63 dBA at 400 feet) for each of the 12 LM6000 turbines. Noise propagation equations were used to predict the noise from each turbine at locations at the proposed Property boundary and beyond. The contribution from each turbine was then logarithmically added to calculate the total noise at each location at the proposed Property boundary and beyond. Noise during a startup sequence would actually be less than during normal operations. This is because the generators are not yet operating during the startup sequence. In addition, a turbine starts slowly at low revolutions, slowly accelerating up to speed.

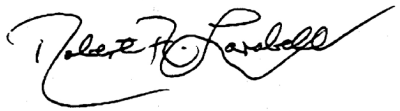
Comment No. 04 **Issue Code: 04**
The manufacturer's estimated noise effects for each of the 12 LM6000 turbines was used to calculate the total noise as indicated in response to Comment No. 03 above. A plot of the noise levels was provided in Section 4.3 of the DEIS.

ROBERT A. LARABELL
Acoustical Consultant

Impact damages
If the technical data voids as described above can not be accurately dispelled, it would seem equitable to provide legal terms by which the severely impacted neighbors are duly compensated for their loss of the existing pristine acoustical ambience. They will find little comfort in the disclaimer that "noise at this level is equivalent to a residential air conditioner at 50 feet" (top, p.4-20). In fact, not only initially but continually, when the equipment suddenly and without warning blasts on at its start-up level, the neighbors as well as their livestock will be jolted into the realization that their rural peace has been acoustically shattered.

05/04

Please call if you have any questions about this report or if I may serve you further.



Comment No. 05 **Issue Code: 04**

The DEIS report states on page 3-9, paragraph one, that the prevailing ambience in the vicinity of the proposed facility is not 30-35 dBA. The results of a 24-hour noise survey conducted three-fourth mile from the proposed Facility is presented. The study, which was conducted in mid-December, indicated an average noise level of 45.2 dBA for this specific rural area, not the 30dBA for a typical rural area.

Development of some of the nearby parcels of agricultural land into housing subdivisions would have several cumulative effects on noise. There would be more people nearby to experience noise from the proposed Facility. Development would likely increase both daytime and nighttime background noise levels whether or not the proposed Project is built. The increase in background noise would make the noise from the proposed Facility relatively less noticeable. Also see response to Public Hearing Comment No. 20.

Discussion of legal issues and compensation of affected residents are beyond the scope of the Sundance EIS.